Covert DVR

w/ Integrated Color Camera

COMPLETE SYSTEM

1 YEAR WARRANTY

Instruction Manual

SVAT

Model #
PI1000

www.svat.com

PRODUCT WARRANTY & REGISTRATION

Please visit our website at www.svat.com to apply for your products warranty registration.

The warranty registration for is located under the support tab on the SVAT website.

We take quality very seriously. This is why all of our products come with a one year warranty from the original purchase date against defects in workmanship and materials.

If you have warranty or support issues please contact us using any of the following methods:

SVAT Electronics USA
2315 Whirlpool St., Unit 333
Nlagara Falls, New York
USA 14305

SVAT Electronics Canada
4080 Montrose Road
Niagara Falls, ON
Canada L2H 1J9

Phone: 866.946.7828
Fax: 888.771.1701
Email: support@svat.com
Website: www.svat.com

Warranty Terms

1. SVAT products are guaranteed for a period of one year from the date of purchase against defects in workmanship and materials. This warranty is limited to the repair, replacement or refund of the purchase price at SVAT's option.
2. When service is required, the warranty is validated by the submission of a fully completed warranty card.
3. This warranty becomes void if the product shows evidence of having been misused, mishandled or tampered with contrary to the applicable instruction manual.
4. Routine cleaning, normal cosmetic and mechanical wear and tear are not covered under the terms of this warranty.
5. The warranty expressly provided for herein is the sole warranty provided in connection with the product itself and no other warranty, expressed or implied is provided. SVAT assumes no responsibilities for any other claims not specifically mentioned in this warranty.
6. This warranty does not cover the shipping cost, insurance or any other incidental charges.
7. You MUST call SVAT before sending any product back for repair. You will be given a Return Authorization number. When returning the product for warranty service, please pack it carefully in the original box with all supplied accessories, and enclose your original receipt or copy, and a brief explanation of the problem (include RA #).
8. This warranty is valid only in Canada and the U.S.A.
9. This warranty card cannot be re-issued.

CAUTION

RISK OF ELECTRIC SHOCK, DO NOT OPEN

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER (BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Graphic Symbol Explanation:

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARDS, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE

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WHAT IS INCLUDED

1 Covert DVR

Mounting Bracket

1 Power Adapter

- Mounting Hardware
- 1 Year Warranty
- Instruction Manual
- Online/Toll Free Tech Support

RCA to RCA
(male) Wire

1GB SD Card

INTRODUCTION

The PI1000 is a Digital Video Recorder hidden inside a motion sensor with a built-in high quality pinhole camera. This device allows you to record video footage discreetly using 3 types of recording modes: Manual, Scheduled, and Motion Detection. Record footage directly to the included SD card and view your captured video by connecting a TV to the PI1000, or remove the SD card and watch it on any computer (SD card reader required). This device should only be used indoors.

The PI1000 can be table mounted or wall mounted, which allows you to place it in many various locations:

- Use the wall mount to install this unit above the front door, garage door, or in the corner of any room.
- Applications without using the wall mount, such as inside a glass cabinet, on your desk/table, inside the car and so on.

You can power this device using four AA batteries or the AC adapter (DC12V). It is suggested to use the plug-in adapter for usage under extended periods of time or use four AA batteries for shorter recording sessions and when there is no power outlet available (e.g. in your car).

FEATURES

Wire Free - This all-in-one security recording system allows you to record wire free and is portable enough for virtually any application.

Motion Detect Recording - Set the PI1000 to record only when movement is detected and customize the motion detect sensitivity.

MPEG-4 Compression - High resolution video is compressed using MPEG-4 technology, allowing you hours of recording without sacrificing quality.

Record to SD Card - All footage is recorded onto the included SD card. Instantly watch what you've recorded by hooking up a TV, or take the SD card with you and watch it on any computer.* The included 1GB SD card will store up to 11 days of footage.

Runs up to 12hrs on Lithium Batteries - Power the PI1000 with the included AC adapter, or use 4 AA batteries for up to 12 hours of continuous use (lithium batteries recommended).

Discreet - This DVR looks like an ordinary motion sensor. No one will know it is actually recording video through a tiny pinhole lens.

Time & Date Stamp - Quickly find your recorded footage by searching for the date and time it was recorded.

Scheduled Recording - Set the times of the day that you want the PI1000 to record.

SDHC Compatible - This device is compatible with High Capacity SD cards up to 32GB (SD 1.1/2.0)

Simultaneous monitoring and recording

Functions supported: Auto Electronic shutter (AES), Auto White Balance (AWB), and Auto Gain Control (AGC).

After a power outage, the unit auto-resumes recording

Supports both NTSC and PAL video system.

Two selectable video resolutions: 320x240 and 640x480.

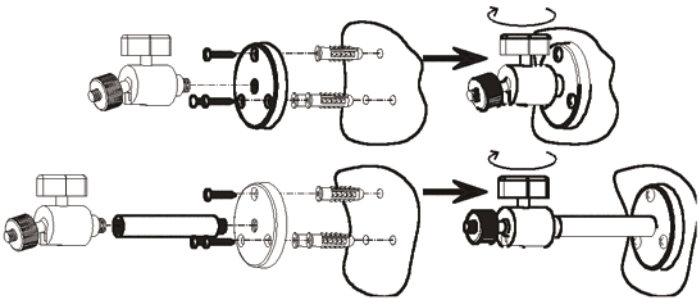
Selectable compression image qualities and frame rate.

Supports flexible playback mode: Normal Playback, Rewind, Fast Forward, and Step Playback.

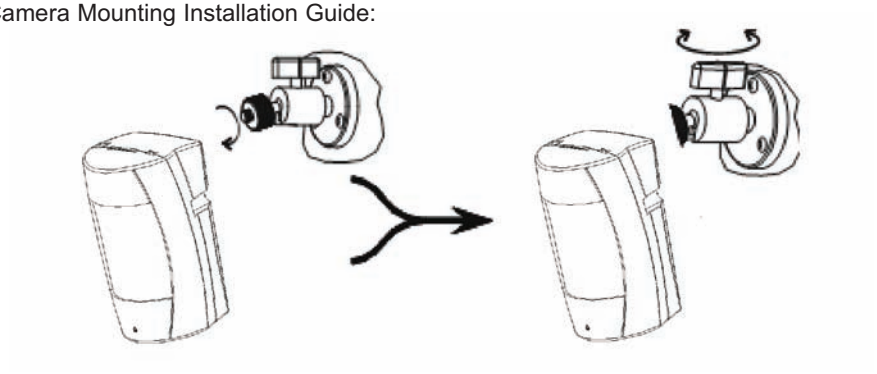
5. INSTALLATION

Please refer to the instructions below for camera mounting and bracket installation:

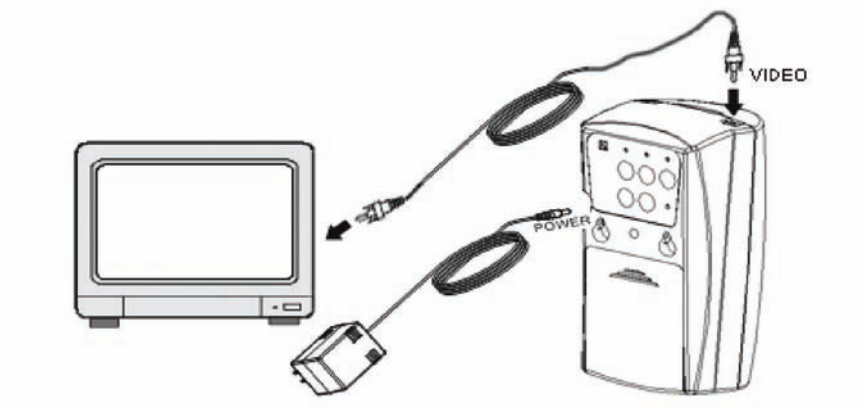
Bracket Installation Guide:



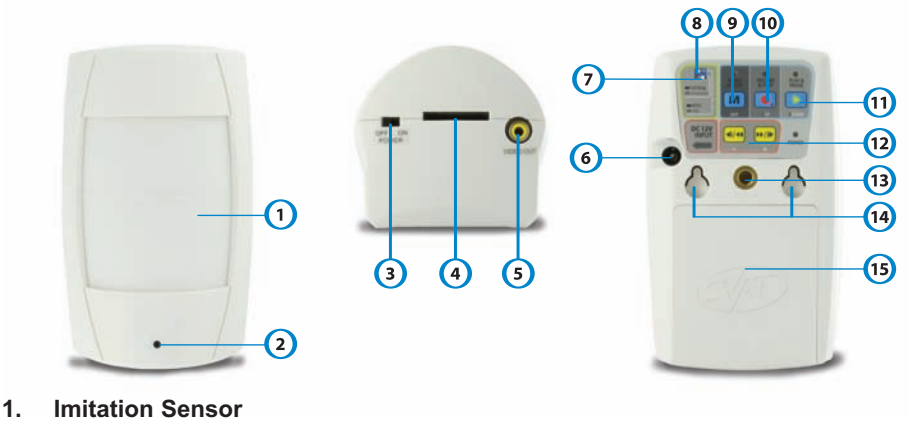
Camera Mounting Installation Guide:



Video Output and Power Adapter Connection Guide:



6. NAME AND FUNCTION OF EACH PART



1. **Imitation Sensor**
2. **Pinhole camera**
3. **Power Switch**
   When power-loss occurs during recording, errors may occur. To switch off the power correctly, always press the MENU button first to stop recording, then switch off the device.
4. **SD Card Slot**
5. **Video Output Jack**
   To enable monitoring functions, connect one end of the RCA wire to the Video Out jack and the other end to your TV's video input jack. Make sure that your TV is said to VIDEO INPUT mode in order to view your DVR onscreen.
6. **RCA Video Output**
7. **Full Stop/Overwrite**
   Select whether to overwrite the recorded SD card or to stop recording when the SD card is full. When you select “Overwrite”, the stored video will be overwritten starting with the oldest data first.
   When you select “Full Stop”, the recording will automatically stop when the SD card is full. The LED indicator on the front panel will start flashing. Note that Full Stop/Overwrite can only be set before powering the unit on.
8. **NTSC/PAL**
   If you are in North America, keep the switch set to NTSC.
   The two most common video standards used are NTSC and PAL. NTSC is the video system commonly used in North America, Taiwan, Japan, Korea, and South America. PAL is the predominant video system used in China, Hong Kong, Europe, and India. Please select and switch to the system that best suits your location. Note that the PAL/NTSC can only be set before powering the unit on.
9. **Menu Button**
10. **Record & Stop Button**
11. **Play & Pause button**
12. **Reverse & Forward Buttons**
13. **Mounting Holes**
14. **Flush Wall Mount Holes**
15. **Battery Compartment**

FUNCTION DESCRIPTION TABLE

MODE \ BUTTON					
STOP MODE MENU ACCESS ○ RECORD & STOP ○ PLAY & PAUSE ○	Switch to Menu Setup Mode	Switch to Record Mode	Switch to Playback Mode		
RECORD MODE MENU ACCESS ○ RECORD & STOP ● PLAY & PAUSE ○		Switch to Stop Mode			
MENU MODE MENU ACCESS ● RECORD & STOP ○ PLAY & PAUSE ○	Refer to Setup Description	Refer to Setup Description	Refer to Setup Description	Refer to Setup Description	Refer to Setup Description
PLAYBACK MODE MENU ACCESS ○ RECORD & STOP ○ PLAY & PAUSE ●					
FREEZE MODE		Switch to Stop Mode	Continuous Playback	Step Rewind	Step Forward
CONTINUOUS MODE		Switch to Stop Mode	Pause Playback	Fast Rewind	Fast Forward

Please read the “Function Description Table” carefully before operation to enable quick understanding of the relations between the button and mode.

PI1000 SETUP

1. The power switch is situated on the top of the device.
   NOTE: Each time the PI1000 is powered on, the system auto-detects the SD card. When the REC LED flashes, it indicates that the system is testing the SD card (complete boot time is several seconds). If a video file error has been detected, the system will initiate auto repair.

2. After power on, the system auto enters live monitoring. If the system was previously set to scheduled or motion activated recording, it may auto-enter record mode.

3. The icon shown on the status line, indicates that the SD card is operating normally.

4. If there is a problem/error with the SD card, the Record or Playback LEDs will not light up when the Record or Play buttons are pressed. Instead, the Play, Menu, and Rec LEDs will flash quickly. Please re-format the SD card before proceeding.

5. When the SD card is writing data during recording, the record LED will flash slowly.

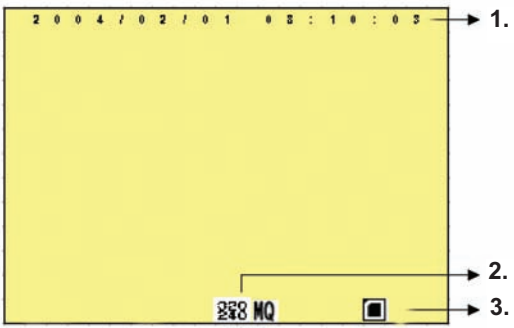
6. After a power outage, the system auto-returns to the previous recording mode.

7. Tip: To quickly format the SD card, turn the DVR off. Then hold the and buttons and switch the DVR on. A “Format OK” message will be displayed when the SD card is successfully formatted.

6.2. MONITORING MODE

Immediately after bootup, monitoring mode is displayed, with the following status indicators:

1. Time Display: System Date and Time.



2. Record Status Display: Manual Record Parameter.

352
240 Record Resolution, please refer to (7.4 Record Setup) for VIDEO SIZE setup.

MQ Record Quality, please refer to (7.4 Record Setup) for VIDEO QUALITY setup.

3. SD card Status:

:Malfunction :SD card testing.

:Functioning normally. :Continuous record.

6.3. RECORD MODE

1. THREE RECORDING MODES:

A) Manual Record: For anytime recording. Press the button to enter manual recording status (start recording). For more information, please refer to (7.4 Record Setup).

B) Scheduled Motion Detection Record: Set a time period to record only when movement is detected. Motion detection triggers scheduled recording, but it will only start recording when the movement exceeds the MD Threshold (when the movement is greater than the preset allowable sensitivity level. For example, if you are recording in a room with an open window, the movement of your curtains may trigger motion detect recording. If this occurs, you can set the MD Threshold to only record when the movement is greater than that of the curtains. (See 7.3 Motion Detection Setup). For more information on Record Settings, please refer to (7.3 Motion Detection setup) and (7.4 Record Setup).

C) Scheduled Continuous Record: Schedule a start and stop time, and the DVR will record continuously. Suitable on few constant frame recording or on long-term continuous recording. For more information, please refer to (7.4 Record Setup).

2. STOP RECORD:

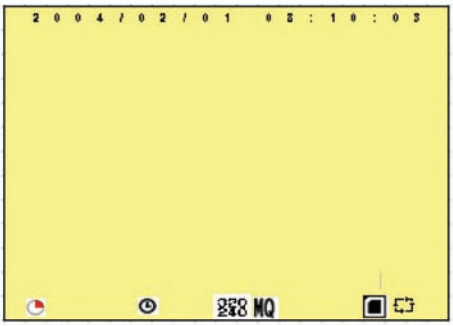
Pressing the button will stop manual recording only. Pressing will stop all recording, regardless of the mode. To continue recording, please follow the methods below to restart recording.

Manual Record: Re-press button.

Schedule Record: Every time your exiting the menu or playback mode, system will check your recording schedule and auto resume recording if applicable.

Motion Detection Record: Every time your exiting the menu or playback mode, system will check your recording schedule and auto resume recording if applicable.

3. RECORD DISPLAY:



:Indicates recording is in progress

:Manual Record.

:Schedule Record.

:Motion Record.

4. The event status is determined by the system recording, according to the order of priority. The order of priority: Manual Record, Motion Detection and then Schedule Record.

5. Different recording modes may have different kinds of setups. Basic setup: video size, recording frames, video quality, and audio recording. When specific recording modes are triggered, the system starts recording according to that specific setup. This kind of design provides flexibility to ensure efficient recording time and quality. For example, if you would like to schedule the PI1000 to record while you are at work (9:00AM-5:00PM), you can set up Schedule Record to record at low video quality with less recording frames to extend the recording time. Then during the hours you are at home, you can set the PI1000 to record only when motion is detected with the highest recording quality and frame rate.

6. Do not shut of the P1000 while recording. Press the menu button to stop recording, then turn the system off.

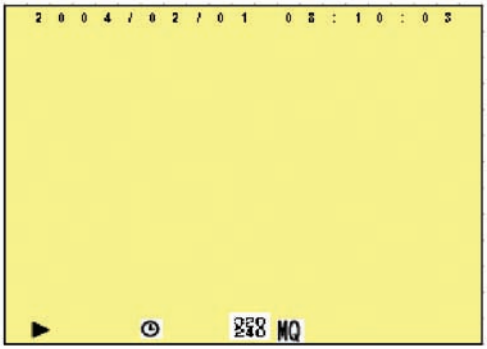
***Note* Power loss during recording may result in incomplete videos or errors.**

6.4. PLAYBACK MODE

Selectable playback modes: Normal Playback and Search and Play.

1. Normal Playback: Press

Pressing the play button will start playing your recorded footage.



▶ : Normal speed playback. Press

again to pause playback.

◀◀ ▶▶ : During normal playback, press

or

button to fast forward or rewind (Speed: x2/ x4/ x8/ x16/ x32). Press

button to return to normal playback.

II : During playback, press

button to pause playback and press again to return to playback status.

⏮ ⏭ : During pause, press

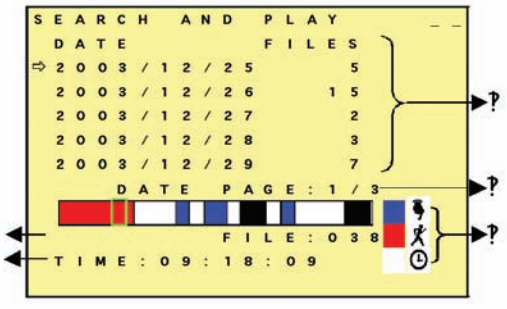
or

button to step forward one frame (unable to step rewind, because file is stored by MPEG4 format), and press button to return to normal speed playback.

Press

button to stop playback function and to return to live status.

2. Search Playback: Press MENU and select (SEARCH AND PLAY).



1. File directory shows dates and the number of video files recorded on that date. Press the UP and DOWN buttons to move the cursor up or down.

2. Each color distinguishes the modes in which the files were recorded (Blue: Manual Record / Red: Motion Detection Record / White: Schedule Record).

Press the – and + buttons to move the cursor left or right. The first image of the highlighted recording is shown on screen.

3. Displays the time highlighted by the event bar.

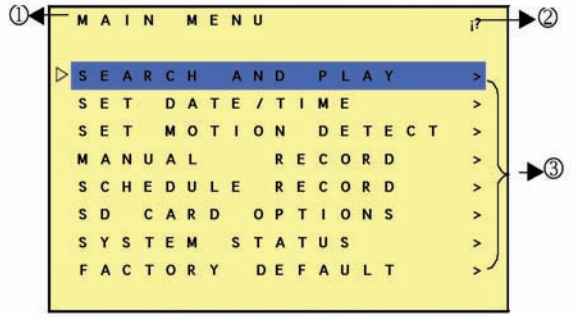
***NOTE* To select the desired playback starting time, press M EXIT and the – + buttons, then select (PLAY), and press M EXIT again to start playback.**

***NOTE* Press the UP button to stop playback and the system will return to (SEARCH and PLAY).**

***NOTE* To return to the main menu, press the – and + buttons to select (EXIT), then press the M EXIT button.**

7. SYSTEM SETUP

7.1 MAIN MENU



1. Item selection title.
2. Menu Layer Indication. The device consists of three menu layers:

■ : First Menu Layer (Main Menu)
■■ : Second Menu Layer
■■■ : Third Menu Layer

3. MENU Content: Basic Menu Operations.

Press the

or

buttons to move the the highlight bar and cursor (▷).

Press the

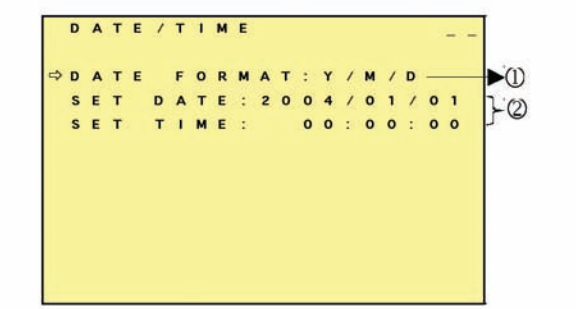
button to enter the sub menu (>). If you are on the main menu, the system will enter live mode.

When in a menu screen with adjustable settings, press the

or

buttons to increase or decrease the setting values that have been highlighted.

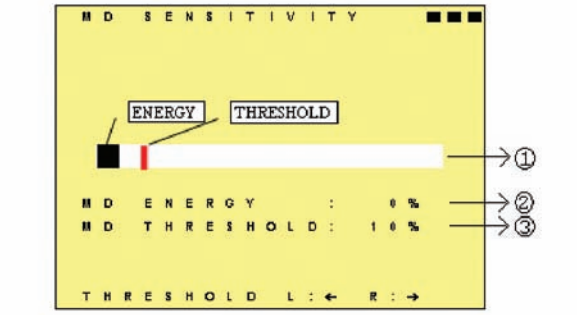
7.2. DATE/ TIME SETUP - NOTE: All words underlined and bold indicate the default value.



1. Date Format: ***Y / M / D*** M / D / Y D / M / Y
2. Date/ Time Adjustment: Year settings are from 2000 to 2099.

7.3. MOTION DETECTION SETUP

Motion detection sensitivity setup:
Changing the threshold value setup will affect the recording sensitivity of the motion detect recording. When set to Motion Detection, the PI1000 will only start recording when the movement on screen exceeds the Motion Detect (MD) Threshold. Any motion (MD Energy) that is less than the preset MD Threshold will not trigger motion detect recording. Any MD Energy that is greater than the MD Threshold will trigger motion detect recording. For example, if you are recording in a room with an open window, the movement of your curtains may trigger motion detect recording. If this occurs, you can set the MD Threshold to only record when the movement is greater than that of the curtains. You can test how much MD Energy is generated by aiming the PI1000 at a steadily moving object. The MD Energy bar will fluctuate based on the movement of the object. If the Energy Bar moves past the MD Threshold (red line), then you should move the MD Threshold to a higher value to avoid false triggers.



1. Sensitivity Bar: The black bar indicates the amount of movement and the red line indicates the MD threshold.

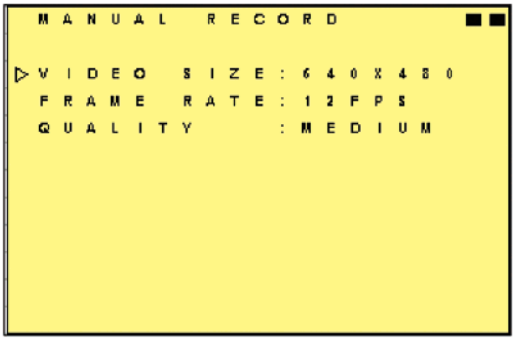
2. MD Energy: The amount of movement generated by the moving object.

3. MD Threshold: Press the and button to change the motion detection threshold value.

7.4. MANUAL RECORD AND SCHEDULE RECORD SETUP - NOTE: All words underlined and bold indicate the default value.

Selectable manual or schedule recording, basic setups are shown below:

1. Manual Record: Press the on to start recording.



Video Size/ Frame Rate:

Resolution:	**320x240**	640x480
Frame Rate (Max.):	30 fps	12 fps

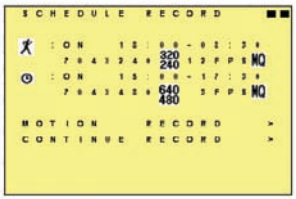
Image Quality:

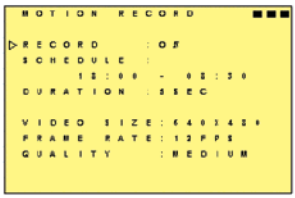
High Quality: HQ ~ Using high recording quality (High image quality but uses more memory storage).

Medium Quality: **MQ** ~ Using medium recording quality (default).

Low Quality: GLQ ~ Using low recording quality (Low image quality but uses less memory storage).

2. Schedule Record (Continuous/ Motion Detection): Schedule Record: Records only within the setup time range.





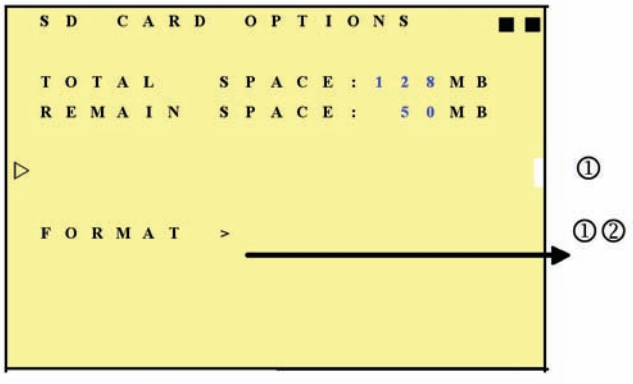
RECORD: Enable or disable schedule recording (ON/ **OFF**).

SCHEDULE: 24 hour recording clock. For example, setting the clock to 08:00-12:00 will record between 8 AM and 12 PM.

Motion Detection Recording - DURATION TIME Setup:

DURATION: Duration the PI1000 will record when motion detect recording has been triggered (5SEC / **10SEC** / 15SEC/ 20SEC / 30SEC).

7.5. SD CARD OPTIONS

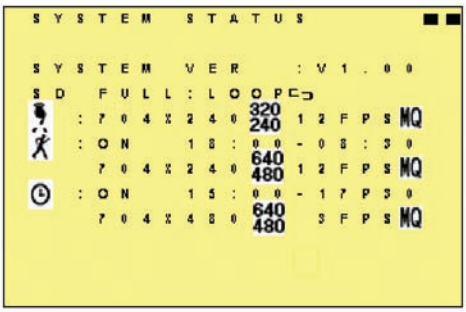


1. Format SD Card: This will delete all data stored on the SD card.

NOTE Recording time depends on the SD card capacity, recording modes, and degree of video variation.

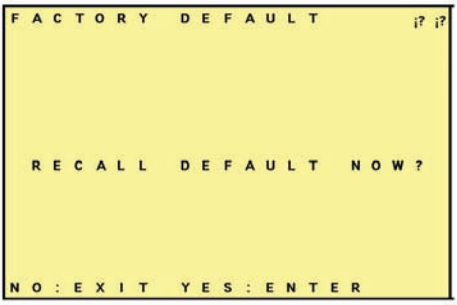
7.6. SYSTEM STATUS

Displays your current settings.



Press any button to return to the Main Menu.

7.7. FACTORY DEFAULT



Press the button to return all settings to their factory default values.

Press the button to exit this screen and return to the Main Menu.

NOTE Returning to factory defaults will erase all your settings (except Date and Time setup).

SPECIFICATIONS

INDOOR DVR

Functionality .....Simplex
Video Compression MPEG-4
Resolution .....640 x 480, 320 x 240
Recording Frame Rate .....320x240: 1~30FPS, 640 x 480: 1~12FPS
Recording Resolution .....VGA (640x480)/ QVGA (320x240)
Recording Qualities .....High, Medium, Low
Recording Modes .....Manual/ Schedule/ Motion Detection
Recording Media .....SD1.1/2.0 SD/SDHC Card, Max 32GB
Video Format .....NTSC/PAL
Video Display Output.....1 CH RCA Composite
Live Viewing .....Single Screen
Live Resolution .....640 x 480
Live Frame Rate .....30 FPS
Play Search Mode .....By Date, Time
Play Speed .....Forward/Rewind: x1/x2/x4/x8/x16/x32
Play Mode .....Single Screen
OSD and System Menu Display .....Yes
OSD Language Display .....English
Time and Date Stamp Display .....Yes
Disk Full Warning .....Full Stop / Overwrite (Selectable)
Automatic Overwrite Option .....Yes
LED Indicators .....Power, Record, Play, Menu
Housing Material .....ABS Plastic
Housing Color .....Pure White
Battery Operable .....Yes, 4 x AA
Battery Life .....up to 12 hours (lithium batteries)
Power Input .....DC 12V 180mA
Power Adapter Input .....AC 110-240V (switching mode)
Operating Temperature .....41°F ~ 113°F
Operating Humidity .....<80%
Dimensions .....5" x 3" x 2.75"
Weight 0.4lbs

Recording Times

QUALITY	512MB SD Card 320 x 240 @ 1FPS	32GB SDHC Card 320 x 240 @ 1FPS
Low	11.25 days	*2 years*
Medium	5.5 days	*1 year*
High	4.3 days	*10 months*

INDOOR DVR

Image Sensor .....1/6" Color CMOS Sensor
Resolution .....640 x 480
Outdoor Use .....No
IP Rating .....N/A
Focal Length .....Board Lens f3.62mm / F2.8
Focus Type .....Fixed
Min. Illumination .....2 lux
Motion Detection .....Yes
Viewing Angle .....66 Degrees
BLC .....Auto
AGC.....Auto
White Balance .....Auto
Signal/Noise Ratio.....46 dB

SVAT SUPPORTS CRIME STOPPERS

Crime Stoppers programs are operated as non-profit charities and are managed by a volunteer board of directors who raise funds and pay rewards to individuals who anonymously call with information that helps solve crime.
Rewards are paid for tips that lead to the arrest and indictment of people charged with felony offenses, and to date Crime Stoppers statistics show a conviction rate of approximately 95%.

To receive more information about Crime Stoppers or to make a charitable donation please fill in the fields on the back of this page, cut on the dotted line and mail in.

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P.O. Box 614
Arlington, Texas
U.S.A 76004-0614

SVAT ELECTRONICS
now you can see

SVAT SUPPORTS CRIME STOPPERS

To receive more information about Crime Stoppers or to make a charitable donation please fill in the fields below, cut on the dotted line and mail in.

CRIME STOPPERS INTERNATIONAL

Crime Stoppers International is an organization of community based civilian Crime Stoppers programs, which assist police in solving crime. You can find more information about Crime Stoppers at www.c-s-i.org

Local Crime Stoppers programs are partnerships between the public, media and local policing organizations. Each program is run by a citizen board, whose purpose is to advertise a local telephone number, which anonymous persons can call with information regarding a crime. Callers (tipsters) may be eligible for a cash reward for their information.

If your community does not have a Crime Stoppers program and would like information about starting one, return this card with the following information.

NAME:_____ PHONE:_____

ADDRESS:_____ CITY:_____

PROV/STATE:_____ COUNTRY:_____ POSTAL/ZIP CODE:_____

E-MAIL ADDRESS:_____

Charitable donations can be made to “CSI” by returning this card in an envelope with your check or money order to the address on the other side.

Amount $_____

THANK YOU

www.svat.com

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